

INDUSTRIAL AUTOMATION PRODUCT

3500/77M 143729-01

3500/77M internal-termination I/O module

Four reciprocating-compressor cylinder pressure signals

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	3500/77M reciprocating compressor pressure system
Part number	3500/77M 143729-01
Country	USA
HS code	8537101190

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Technical Specifications

Technical values below are limited to the named Bently Nevada product record.

PARAMETER	TECHNICAL VALUE
Complete model	3500/77M 143729-01
Assembly	143729-01
Termination	Internal
Input channels	4
Frequency response	0 to 5.5 kHz
Pressure accuracy at 25 degC	+/-0.5%
Pressure accuracy over temperature	+/-1%
Power consumption	7.8 W full load
Buffered output impedance	550 ohm
Transducer supply	+23 +/-0.8 V DC
Current limit	24.5 mA per channel
Operating temperature	-30 to +65 degC
Storage temperature	-40 to +85 degC
Humidity	95%, noncondensing
Rack occupancy	One full-height front slot and one rear slot

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System Role and Architecture

Four reciprocating-compressor cylinder pressure signals

FUNCTION 1

Handles four dynamic pressure channels

FUNCTION 2

Covers signals from DC to 5.5 kHz

FUNCTION 3

Supplies compatible pressure transducers

FUNCTION 4

Provides buffered channel outputs for diagnostics

Matched system components

- 3500 rack
- compatible cylinder-pressure transducers
- matched I/O module and field wiring
- 3500 Rack Configuration Software

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	3500 rack
Companion hardware	compatible cylinder-pressure transducers
Field connection	matched I/O module and field wiring
Primary system function	Handles four dynamic pressure channels
Controlled acceptance duty	Recip compressor cylinder-pressure monitoring

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Applications and Engineering Context

Recip compressor cylinder-pressure monitoring

Handles four dynamic pressure channels

Compressor performance analysis

Covers signals from DC to 5.5 kHz

Rod-load and valve diagnostic support

Supplies compatible pressure transducers

3500/77M system renewal

Provides buffered channel outputs for diagnostics

TECHNICAL NOTE

Verify 3500/77M 143729-01, front/rear assembly pairing, transducer supply, channel scale and phase reference, firmware compatibility and rack slot before work; prove all four pressure waveforms and alarms after restart.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	3500/77M 143729-01 / 3500/77M 143729-01 recorded
Physical interface	3500 rack
Companion check	compatible cylinder-pressure transducers
Functional proof	Handles four dynamic pressure channels
Application test	Recip compressor cylinder-pressure monitoring

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Engineering Precautions

- 1 Verify the complete 3500/77M 143729-01 marking and its assigned 3500/77M reciprocating compressor pressure system position before work.
- 2 Place the connected recip compressor cylinder-pressure monitoring process in the approved maintenance state.
- 3 Isolate applicable power and four reciprocating-compressor cylinder pressure signals field energy before disconnecting conductors.
- 4 Record connector, conductor, address, firmware and software identities before removal.
- 5 Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Bently Nevada 330101 00 24 10 12 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330101 00 24 10 12 05 page
Bently Nevada 330710 000 050 50 02 00	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330710 000 050 50 02 00 page
Bently Nevada 330880 28 00 085 03 02	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330880 28 00 085 03 02 page
Bently Nevada 330130 070 11 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330130 070 11 05 page
Bently Nevada 330130 075 11 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330130 075 11 05 page
Bently Nevada 330130 080 11 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330130 080 11 05 page
Bently Nevada 330101 00 10 15 02 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330101 00 10 15 02 05 page
Bently Nevada 330101 00 44 15 02 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330101 00 44 15 02 05 page

MANUFACTURER SOURCE RECORD

Bently Nevada 3500/77M Recip Cylinder Pressure Monitor Datasheet

147485 Rev. Y

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